

Tacoma Smelter Plume Web FAQs

Q: I can't find the answer to my question—who can I call?

A: Please contact Public Involvement Coordinator Hannah Aoyagi at (360) 407-6790 or by e-mail at haoy461@ecy.wa.gov. The person you need to speak with might also be listed on our [contact list](#).

General Information

Q: Do I live within the Tacoma Smelter Plume?

A: Visit our [interactive map](#) and zoom in to your neighborhood or search your address using the "Search" tool. Other types of maps are available [here](#).

Q: How do I read the Tacoma Smelter Plume map? Is my property clean if I live in one of the dark green zones?

A: You will need to test your soil to determine how much arsenic is on your property (see below). This map shows only a general pattern of arsenic contamination and cannot tell you if your specific property is clean or not. It is based on a relatively small number of samples for the size of the map. It can help you estimate the highest arsenic levels that are likely to be found within a zone.

Q: Is my soil contaminated if I live within the Tacoma Smelter Plume?

A: Not necessarily. Arsenic and lead levels vary widely across properties, due to wind patterns and the history of a property. For example, soil disturbance like construction or landscaping may reduce levels of contamination. Property-specific sampling is needed to determine arsenic and lead levels in your soil.

Q: How can I test my soil for arsenic and lead?

A: Ecology has [brochures](#) with step-by-step instructions on how to take your own soil samples and get them analyzed. There is no need to buy special tools—you will need a garden trowel, stainless steel bowl and spoon, gloves, and zip loc bags. Laboratories generally charge \$30 - \$40 per sample analyzed.

Currently, Pierce County residents can contact the Tacoma-Pierce County Health Department for [free soil arsenic and lead testing](#).

Q: What are “elevated” levels of arsenic or lead?

A: Arsenic: average of all samples ≥ 20 parts per million (ppm) or more
single arsenic sample ≥ 40 ppm or more

Lead: average of all samples ≥ 250 ppm or more
single lead sample ≥ 500 ppm or more

Q: How did Ecology determine “elevated” levels for arsenic and lead? What does this mean in terms of health risk?

A: These levels are the state cleanup levels for arsenic and lead. Please see the August 2001 [Question and Answer](#) document for details about how these levels were set and the related risk levels.

Q: What should I do if I test my soil and find elevated levels of arsenic or lead?

A: Ecology offers soil safety guidance [brochures](#) that explain what to do after you get your soil sample results. You and your family should take [Healthy Actions](#), such as washing hands after being outside and taking off shoes. This is especially important for children. You can also cover or remove polluted soils, or mix them with clean soils.

If you find arsenic levels over 100 ppm, please contact the Department of Ecology for further guidance. Certain methods, such as soil mixing will not work for reducing arsenic to below 20 ppm. Hannah Aoyagi, (360) 407-6790, can direct your call to the right Ecology staff.

Q: Can Ecology pay for cleaning up arsenic or lead on my property?

A: Currently, Ecology does not have funding to clean up residential properties.

If you own or manage a childcare within the Soil Safety Program's [Service Area](#), you may be eligible for free soil sampling and funding assistance. For more information about the [Soil Safety Program](#), please contact Amy Hargrove at (360) 407-6790 or by e-mail at ahar461@ecy.wa.gov.

Q: I don't plan to test my soil—what can I do without knowing what the arsenic and lead levels are?

A: As a precaution, you can take [Healthy Actions](#), such as washing hands after being outside and taking off shoes. These actions can help protect you and your family from a variety of possible soil pollutants!

You can cover, mix, or remove soils on your property. However, you will need to take samples to know whether any arsenic or lead remains at elevated levels.

Worker Safety

Q: What should construction workers and landscapers do to protect themselves?

A: If soil is contaminated, extra precautions should be taken to limit worker exposure.

Employers are responsible for meeting health and safety requirements at work sites. Ecology recommends:

- Avoiding eating, drinking, smoking, or chewing any materials while in a contaminated work area.
- Washing hands and exposed skin after working with soil and before eating, drinking, smoking, or chewing any material.
- Wetting down dry soil before beginning any work that might create dust.
- Wearing clean, full-body protective clothing, shoes, and gloves.
- Washing work clothes separately from other clothing.
- Wear a mask or respirator if dust is generated.

Please contact the Washington State Department of Labor and Industries for more information. In King County, Mark Soltow can be reached at (206) 515-2837 or SOLT235@lni.wa.gov. In Pierce County, Pat Mahaney can be reached at (253) 596-3917 or MAHA235@lni.wa.gov.

Health Effects and Risk

Q: What are the health effects of arsenic and lead? How can I be exposed?

A: Arsenic and lead are both toxic metals that are [especially harmful to children](#). Arsenic exposure has been linked to heart disease, diabetes, and cancer of the bladder, lung, skin,

kidney, liver, and prostate. Lead can cause behavioral problems, permanent learning difficulties, and reduced physical growth.

You can be exposed to arsenic and lead through accidentally eating or breathing dust from contaminated soil. You can be exposed to lead from many other sources:

- Old paint that is chipping or peeling.
- Old water supply pipes soldered with lead.
- Lead-glazed pottery.
- Lead fishing weights.
- Home remedies containing lead, such as azarcon, greta, pay-loo-ah, and kohl.

Please visit the [Arsenic and Lead page](#) for fact sheets from the Washington State Department of Health (DOH).

Q: Can I be exposed to arsenic and lead by eating vegetables and fruit from my garden?

A: Some vegetables and fruits may take up small amounts of arsenic into their roots or leaves. However, there may be a greater risk from unwashed fruits and vegetables that have small amounts of contaminated soil. Wash fruits and vegetables before eating them. Public Health—Seattle & King County offers [gardening advice](#).

Asarco

Q: What is the difference between Ecology's Tacoma Smelter Plume Dirt Alert program and the Environmental Protection Agency's Ruston Superfund cleanup?

A: The U.S. Environmental Protection Agency (USEPA) is cleaning up contamination within about a one mile radius of the former smelter site. This cleanup is being done under USEPA's [Superfund Program](#). Please contact Kevin Rochlin at (206) 553-2106, rochlin.kevin@epa.gov or Jeanne Odell at (206) 553-6919, odell.jeanne@epa.gov for more information about the Superfund cleanup process.

Ecology is addressing the larger area of contamination outside of the Superfund cleanup area. Because the 1,000 square mile Tacoma Smelter Plume is so large, Ecology is using a variety of approaches to protect human health (see the [Management Plan](#) for more information).

Q: Why is the federal residential arsenic action level 230 ppm at the Asarco Tacoma Smelter Superfund Site in Ruston, but the state residential level is 20 ppm?

A: Please see page five of the August 2001 [Question and Answer](#) document.